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Zoological Research

A New Genus and a New Species of Grasshoppers from Jiangsu Province (Orthopters: Arcypteridae)

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Abstract: The paper reports a new genus of Arcypteridae i.e. *Suacris* gen. nov. and a new species *Suacris siyangensis* sp. nov. The new genus is similar to *Omocestus* I. Bol., but differs from the latter in: ① Lateral carinae slightly curved, widest 1.6-1.8 times greater than narrowest. ② Cubital area wider than or equal to medial area. ③Tympanum organ distinct, ♂ widely oval, ♀ crevice-like. The new genus is also similar to *Stenobothroides* Xu *et* Zheng, but differs from the later in: ①Lateral carinae obvious and curve. ②Tergum of terminal abdomere without furcula. ③Male subgenital plate long conica. Type specimens are deposited in Northwest Plateau Institute of Biology, the Chinese Academy of Sciences.

Key words: Orthoptera; Arcypteridae; New genus; New species; China

江苏网翅蝗科一新属一新种
(直翅目: 蝗总科)

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摘要: 记述了采自江苏泗阳县网翅蝗科 1 新属——苏蝗属 *Suacris* gen. nov. 及 1 新种——*Suacris siyangensis* sp. nov.。该新属近似于牧草蝗属 *Omocestus* I. Bol., 其主要区别特征为: 前胸背板侧隆线微微弯曲, 最宽处为最窄处的 1.6~1.8 倍; 前翅肘脉域几乎等宽或略宽于中脉域; 鼓膜器雄性宽卵形、雌性狭缝状。该新属也近似于拟草地蝗属 *Stenobothroides* Xu *et* Zheng, 其主要区别特征为: 侧隆线明显且弯曲; 雄性腹部末节无尾片; 雄性下生殖板长锥形。新种模式标本保存于中国科学院西北高原生物研究所。

1 苏蝗属, 新属 *Suacris* gen. nov.

模式种: 泗阳苏蝗 *Suacris siyangensis* sp. nov.

正模: 1♂; 副模: 1♀, 江苏泗阳, 1957-Ⅸ-16, 采集者未知。

体小型。头大而短, 较短于前胸背板。头侧窝明显, 呈长方形。颜面向后倾斜。中单眼较小于侧单眼。触角丝状, 基部触角节宽大于长, 向端部触角节渐渐变狭。前胸背板中隆线明显, 侧隆线在沟前区微微弯曲, 其最宽处约为最窄处的 1.6~1.8 倍; 前胸背板后缘中央钝角形。前、后翅发达, 超过后股节中部, 前翅顶端圆形, 无凹陷, 前翅肘脉域几乎等宽或略宽于中脉域。中、后胸腹板侧叶全长均明显地分开。后足股节内侧具发音齿, 可与前翅纵脉磨擦发音。后足胫节缺外端刺。鼓膜器: 雄性宽卵形, 雌性宽缝状。

关键词: 直翅目; 网翅蝗科; 新属; 新种
中图分类号: Q969.265.1 **文献标识码**: A **文章编号**: 0254-5853(2002)04-0319-04

When examining specimens of grasshoppers in the Northwest Plateau Institute of Biology, the Chinese Academy of Sciences, we discovered two specimens from Siyang County of Jiangsu Province, it can not be placed in genera known. The new genus *Suacris*, is created for the species. A new genus and a new

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species are described as below. Type specimens are deposited in Northwest Plateau Institute of Biology, the Chinese Academy of Sciences.

1 *Suacris* gen. nov. (Tables 1 – 2)

Body small. Head large and short, shorter than length of pronotum. Fastigial foveolae distinctly and oblong. Median ocellus smaller than lateral ocellus. Antennae filiform, the width of basal segments are a little larger than length, toward apices gently narrow. Pronotum cylindrical, anterior margin straight, median carina and lateral carinae distinctly, lateral carinae slightly curved, median carina and lateral carinae are deeply cut by hind transverse sulcus. Lateral lobes of metasternum and mesosternum separated. Elytra developed extending over the middle of hind femur, the apex narrow and round, cubital area wider than or equal to medial area. Lower carinula of hind femur with stridulatory pegs on the inner side, sound produced by rubbing of that against longitudinal veins of elytra. The hind femur well-proportioned. Upper and lower knee-lobes round and blunt. External apical spine of hind tibia absent. Tympanum organ distinct, ♂ widly oval, ♀ crevice-like. Tergum of terminal abdomere without furcula. Ovipositor valve short robust, the exterior upper edge of dorsal valvulae without denticles in middle part, the end slightly hooked.

Type-species: *Suacris siyangensis* sp. nov.

Table 1 Comparison of new genus *Suacris* and *Omocestus*

	Suacris gen. nov.	*Omocestus* I.Bol., 1878
Lateral carinae	slightly curved,	obviously curved,
greater than narrowest	widest 1.6 – 1.8 times	widest 2 – 3 times
Cubital area	wider than or equal to medial area	narrow or disappear
Tympanum	♂ widly oval, ♀ crevice-like	crevice-like

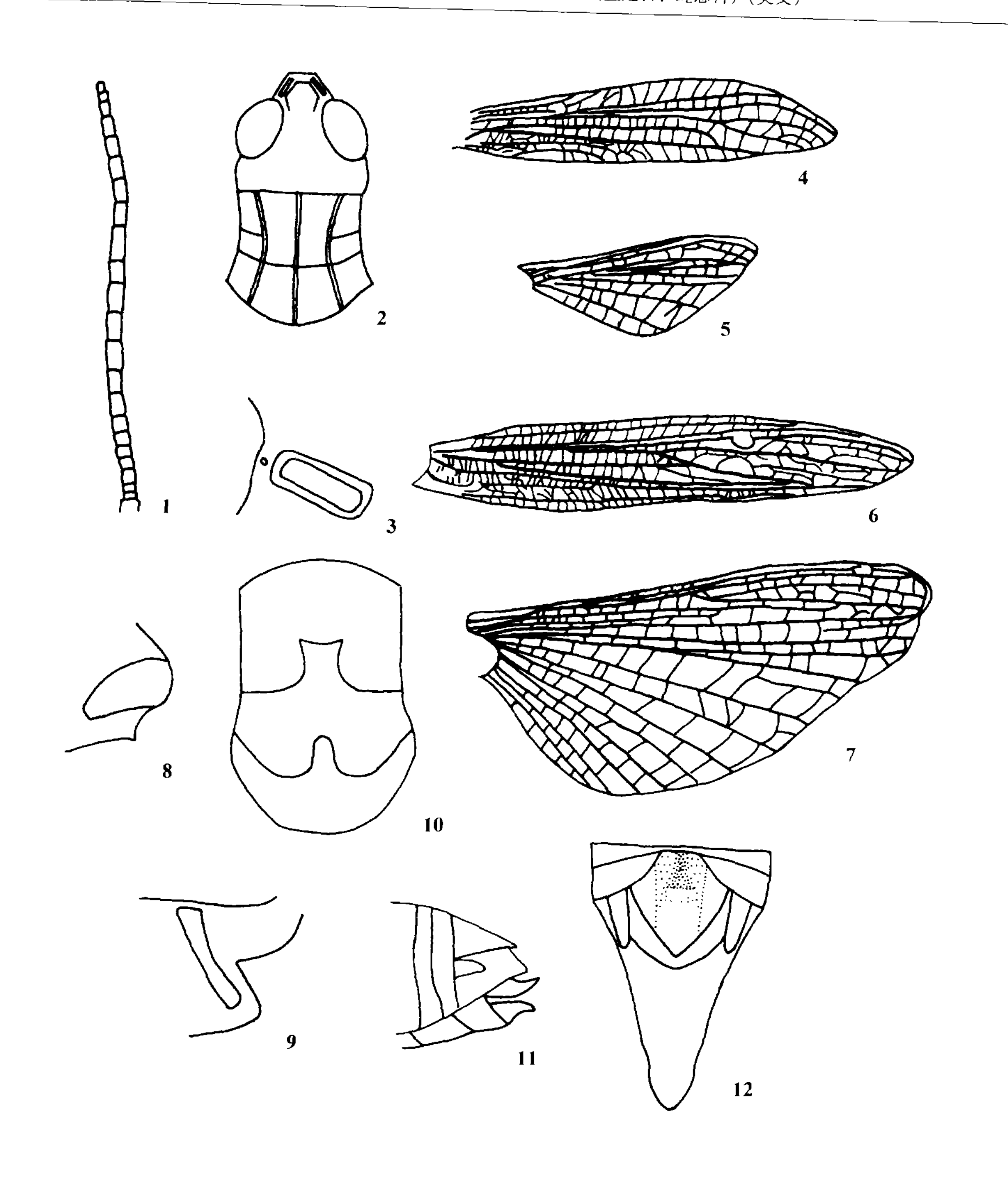
Table 2 Comparison of new genus *Suacris* and *Stenobothroides*

	Suacris gen. nov.	*Stenobothroides* Xu *et* Zheng, 1996
Lateral carinae	obvious and curve	obvious and straight
Male tergum of terminal abdomere	without furcula	withwide and blunt furcula
Male subgenital plate	long conica	round

2 *Suacris siyangensis* sp. nov. (Figs. 1 – 12)

Male: Body small. Head larger and short, shorter than length of pronotum. Face slightly obligue in profile, with distinct sulcus throughout, nearly parallel, slightly wide downward. Fastigial foveolae oblong, long is about 3.4 times of wide. Median ocellus smaller than lateral ocellus. Antennae filiform, extending over the posterior margin of pronotum, the width of basal segments are a little larger than length, toward apices gently narrow. Eyes oval, length is as long as 1.6 times of width. Anterior margin of pronotum straight, posterior margin of pronotum not excised in the middle, median carina and lateral carinae distinctly, lateral carinae slightly curved in the middle, widest 1.6 times greater than narrowest. Median carina and lateral carinae are deeply cut by hind transverse sulcus. The prozona is 1.3 times of metazona in length. The length of interspace of mesosterum is 1.5 times of the narrowest, lateral lobes of metasternum separated. Forewing developed, extending over the middle of hind femur, the forewing is as long as 2.9 times than pronotum in length. Lower carinula of hind femur with stridulatory pegs on the inner side, sound produced by rubbing of that against longitudinal veins of elytra. Hind tibia with 12 spines on the inner and outer side, external apical spine absent. Tympanum organ distinct, widly oval. Anal plate approximated triangular, with sulcus in the middle. Tergum of terminal abdomere without furcula; Cercus conica; Subgenital plate long conica. Body yellow. Antennae yellow. Lateral lobe of pronotum with light yellow maculation. Subgenital plate yellow. Hind femur yellow, the end dark. Hind tibia yellow, with dark end.

Female: Body more robust. Fastigial foveolae ob-



Figs. 1 – 12 *Suacris siyangensis* sp. nov.
1. Antenna ♂; 2. Pronotum ♂; 3. Fastigial foveolae; 4. Elytra ♂; 5. Hindwing ♂; 6. Elytra ♀; 7. Hindwing ♀; 8. Tympanum organ ♂; 9. Tympanum organ ♀; 10. Metasternum ♂; 11. Valves of ovipositor; 12. Apex of abdomen ♂.

long, long is about 5 times of wide. Eyes oval, length is as long as 1.7 times of width. Lateral carinae slightly curved in the middle, widest 1.8 times greater than narrowest. The length of prozona is 0.9 times the length of metazona. The length of interspace of mesosterum is 1.2 times of narrowest. Forewing developed, extending over the middle of hind femur. The length of forewing is as long as 3 times than that of pronotum. Hind tibia with 9 spines on the inner and outer side. Tympanum organ distinct, crevice-like. Anal plate approximated tongue, without sulcus in the middle. Cercus short conica. Ovipositor valve short ro-

bust, the exterior upper edge of dorsal valvulae without denticles in middle part, the end slightly hooked.

The color of body is similar to male.

Length of body: ♂ 16.1 mm, ♀ 21.2 mm. Length of pronotum: ♂ 3.1 mm, ♀ 4.8 mm.

Length of elytra: ♂ 9.2 mm, ♀ 14.4 mm. Length of hind femur: ♂ 9.7 mm, ♀ 13.7 mm. Holotype 1♂, paratype 1♀, Siyang, Jiangsu, 16-Ⅸ-1957. Collector unknown.

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书 讯

《昆虫生物化学》
——为读者展示昆虫生命的奥秘

由南京农业大学植物保护学院昆虫学系王荫长教授主编，李国清、陈长琨和韩召军教授参编的《昆虫生物化学》已由中国农业出版社出版。发行一年多来，受到海峡两岸昆虫学界同行的认可与欢迎。

该书以详尽的资料介绍了昆虫生物化学各个领域的基本理论以及最前沿的研究进展。

全书 72 万字，共 15 章。第 1、2 章以昆虫生物化学的基础（细胞的结构与功能）为导论，并详细阐述了昆虫的中间代谢（包括碳水化合物、脂肪和氨基酸等）；第 3 章为昆虫表皮化学；第 4 至第 7 章分别介绍了昆虫贮存蛋白和热激蛋白、神经肽及相关激素、生物胺及其受体，叙述了它们的合成、代谢及其基因表达和转录调节等有关的分子生物学特性；第 8、9 章为昆虫免疫化学，重点介绍了免疫机制和抗菌肽；第 10 章至第 12 章介绍了与昆虫生殖有关的生理生化机制，卵黄蛋白、雄性附腺分泌物及其生理功能；第 13 章至第 15 章阐述了昆虫蜕皮激素、保幼激素和各类性信息素的生物合成、代谢和作用机理。

该书可作为研究生选读昆虫生理学、昆虫生物化学和昆虫分子生物学等课程时的参考教材。同时，对从事昆虫生理生化与毒理学和昆虫分子生物学的科研人员而言，也是一本有价值的参考书。

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